

REMARKS

By this paper, Claims 1-2, 5-7, 14-16, 19-20, and 26-27 have been amended, and new Claims 28 and 29. Support for the amendments to the claims can be found at least in paragraph [0023] of the specification as filed, as well as elsewhere throughout the specification. Support for new Claims 28 and 29 can be found at least in paragraph [0032] of the specification as filed. No new matter has been added by this amendment. Claims 1-27 are pending and presented for examination.

Objection to the Specification

The Examiner has objected to the specification for failing to include information regarding the priority claim of the present application. In response, Applicant has amended the specification to include the required information. Applicant respectfully submits that this amendment to the specification has fully addressed the Examiner's objection to the specification.

Rejection of Claims Under 35 U.S.C. § 112, Second Paragraph

The Examiner has objected to Claims 1-4, 7-18, and 21-25 under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner has stated that Claims 1 and 14 are considered incomplete because it is essential that the instant device include a microbubble emitter for emitting gas bubbles of a specific size, and the instant method include a step for emitting microbubbles or gas bubbles of a specific size.

In response, Applicant has amended Claim 1 to recite that the emitter is configured to emit gas comprising microbubbles into the ultrasound field in the compartment. Similarly, Applicant has amended Claim 14 to recite emitting gas comprising microbubbles into the ultrasound field in the compartment containing the physiological. As each of Claims 1 and 14 now recites that the gas comprises microbubbles, Applicant respectfully submits that the amendments to Claims 1 and 14 have fully addressed the Examiner's claim rejections under 35 U.S.C. § 112, second paragraph, and requests the withdrawal of the same.

Rejection of Claims Under 35 U.S.C. § 102(b)

The Examiner has rejected Claims 1-27 under 35 U.S.C. 102(b) as anticipated by PCT Publication WO /98/01394 by Cordemans, et al. In rejecting Claims 1-27, the Examiner has stated that "Cordemans et al. (see Abstract) appear to teach the structure of the device and the method steps recited in the instant claims." Applicant respectfully submits that Claims 1-27 are patentable over the cited reference at least because the Examiner has not identified disclosure of each limitation of independent Claims 1 and 14 in the cited reference.

In particular, amended Claim 1 recites a device for treating a cell suspension, comprising, *inter alia*, an ultrasound emitter configured to emit ultrasound having a frequency higher than 100 kHz at a power level that is less than 30mW/cm^3 for a duration sufficient to cause programmed cell death in said cells without causing significant cavitation or significantly heating the fluid. Applicant respectfully notes that the Examiner has only provided a general citation to the Abstract of the Cordemans et al. reference. Applicant respectfully submits that the Examiner has not pointed to any portion of the Cordemans et al. reference which discloses an ultrasound emitter configured to emit ultrasound at the claimed power level.

Amended Claim 14 similarly recites method of neutralizing, removing and/or preventing the growth of hyperproliferative undifferentiated, or virally infected cells suspended in a physiological fluid, comprising, *inter alia*, emitting ultrasound having a frequency higher than 100 kHz into a compartment containing the physiological fluid to be treated at a power level that is less than 30mW/cm^3 . Applicant respectfully submits that the Examiner has not identified any portion of the cited reference which teaches such a limitation.

Applicant also notes that new Claims 28 and 29 provide further patentable distinction by reciting, respectively, the emission of ultrasound at a power level of about 7mW/cm^3 , and that the ultrasound emitter is configured to emit ultrasound at a power level of about 7mW/cm^3 . As no portion of Cordemans has been cited reciting the claimed power levels in independent Claims 1 and 14, Applicant respectfully submits that these claims present an additional patentable distinction.

As the Examiner has not pointed to disclosure of each limitation of independent Claims 1 and 14 in the cited reference, Applicant respectfully requests the withdrawal of the rejections of Claims 1 and 14 under 35 U.S.C. 102(b). As Claims 2-13 and 15-29 depend from one of

independent Claims 1 and 14, Applicant respectfully requests the withdrawal of the rejections of all rejected dependent claims, as well.

Rejection of Claims 1-27 on the Ground of Nonstatutory Obvious-Type Double Patenting

The Examiner has rejected Claims 1-27 on the ground of nonstatutory obviousness-type double patenting as unpatentable over Claims 1-11 of U.S. Patent No. 6,540,922, Claims 1-11 and 23 of U.S. Patent No. 6,736,979, and Claims 1-11 of U.S. Patent No. 7,267,778. The Examiner has further stated that the allegedly conflicting claims are not patentably distinct from each other because the method steps and structure of the device recited in the instant claims appears to be fully encompassed by the method steps and structure recited in the respective claims of the patents.

Applicant respectfully traverses the Examiner's nonstatutory obviousness-type double patenting rejection of Claims 1-27. In particular, Applicant notes that the none of the referenced claims in the earlier patents reference the power level of the ultrasound being emitted, which is positively recited in both independent Claims 1 and 14 of the present application. Thus, Applicant respectfully submits that the present claims are patentably distinct from the method steps and structure recited in the above-referenced claims of the earlier patents.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

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Conclusion


Applicant respectfully submits that the above amendments and arguments have addressed each of the objections and rejections in the outstanding Office Action, and requests the allowance of all pending claims.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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AMEND

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